

# Claims

- [c1] A method and circuit for generating a signal proportional to the output current of at least one electrical power source that feeds one or more other downstream converters, comprising:  
current sensing means for generating signals proportional to the instantaneous current in the switches or transformers or inductors windings of the said downstream converters;  
averaging and summing means to process the said signals and generate a signal that is proportional to the sum of the input currents of the said downstream converters and also to the output current of the said power source.
- [c2] A method and circuit as of claim 1, where the power source for the downstream converters is at least one front end converter.
- [c3] A method and circuit as of claim 1, where the averaging and summing means is analog.
- [c4] The method and circuit as of claim 1 where the averaging and summing means is digital.

- [c5] A method and circuit as of claim 1, where the said signal is used for control purposes.
- [c6] A method and circuit as of claim 1, where the said signal is used for monitoring purposes.